DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	ROUND POND	Lake Area (ha):	7.53
Town:	LYMAN	Maximum depth (m):	4.6
County:	Grafton	Mean depth (m):	1.1
River Basin:	Connecticut	Volume (m^3):	81000
Latitude:	44°17'30" N	Relative depth:	1.5
Longitude:	71°54'37" W	Shore configuration:	1.39
Elevation (ft):	830	Areal water load (m/yr):	49.98
Shore length (m):	1350	Flushing rate (yr^{-1}):	46.10
Watershed area (ha):	819.3	P retention coeff.:	0.36
% watershed ponded:	6.1	Lake type:	natural

BIOLOGICAL:		16 February 2000	3 August 1999
DOM. PHYTOPLANKTON (% TOTAL)	#1	NO WINTER PLANKTON	DINOBRYON 50%
	#2	ANALYZED	RHIZOSOLENIA 30%
	#3		CERATIUM 12%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			5.12
DOM. ZOOPLANKTON (% TOTAL)	#1		KERATELLA 52%
	#2		POLYARTHRA 27%
	#3		NAUPLIUS LARVA 8%
ROTIFERS/LITER			649
MICROCRUSTACEA/LITER			92
ZOOPLANKTON ABUNDANCE (#/L)			758
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			2.2
BOTTOM DISSOLVED OXYGEN (mg/L)		1.5	0.4
BACTERIA (E. coli, #/100 ml)	#1		4
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : 3000

CHEMICAL:

Lake: ROUND POND
Town: LYMAN

	16 February 2000		3 August 1999		
DEPTH (m)	1.5	3.0	1.0		3.0
pH (units)	6.5	6.5	7.1		7.1
A.N.C. (Alkalinity)	27.2	39.5	32.3		30.9
NITRATE NITROGEN	0.07	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.22	0.28	0.60		0.50
TOTAL PHOSPHORUS	0.007	0.007	0.010		0.014
CONDUCTIVITY (μmhos/cm)	92.0	99.1	84.1		83.2
APPARENT COLOR (cpu)	13	24	45		45
MAGNESIUM			1.47		
CALCIUM			13.3		
SODIUM			2.1		
POTASSIUM			0.42		
CHLORIDE	2	3	2		2
SULFATE	6	6	3		3
TN : TP	41	40	60		36
CALCITE SATURATION INDEX			1.6		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1999

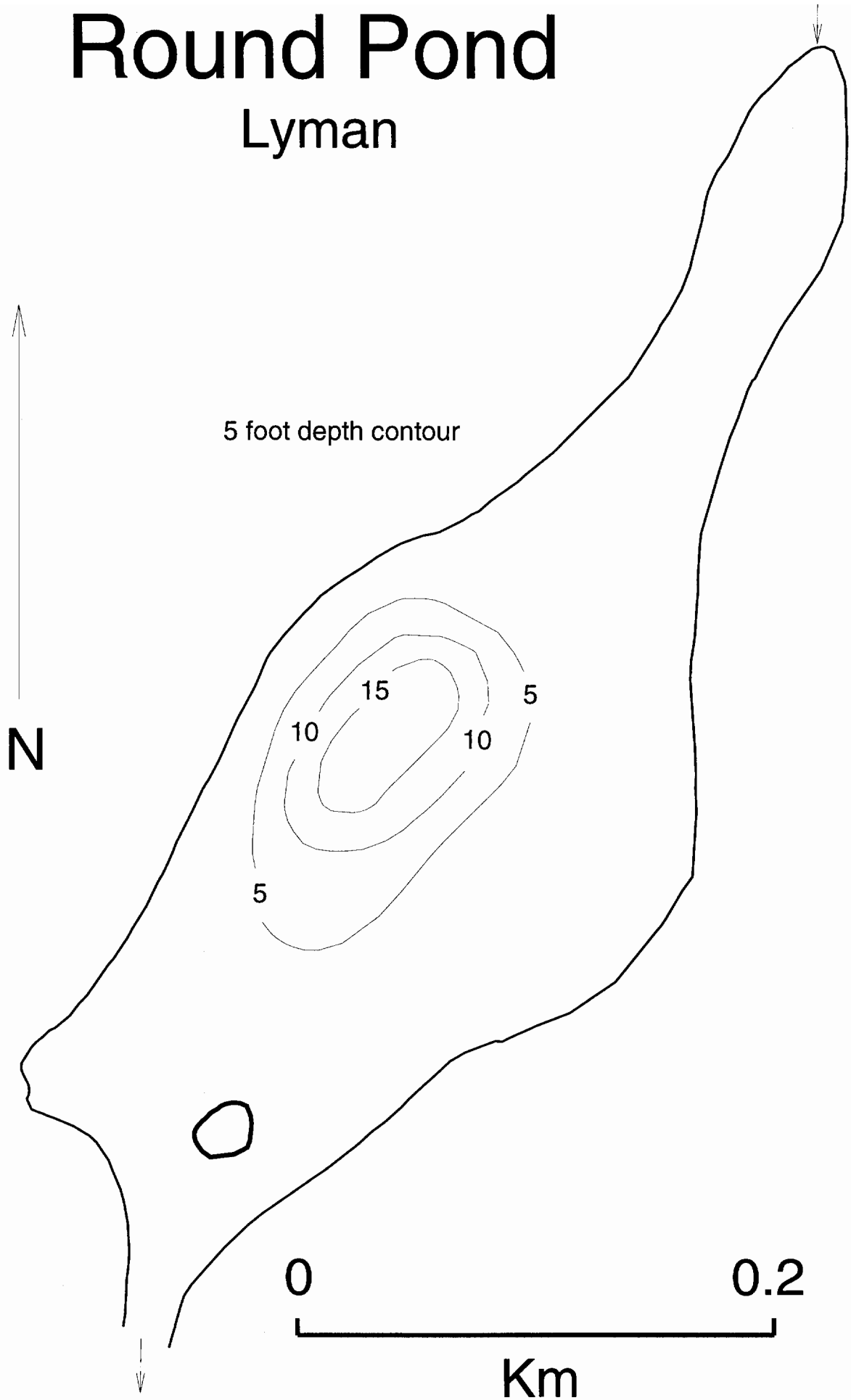
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	5	1	9	Meso.

COMMENTS:

1. This is a light tea-colored, circum-neutral pond with relatively high ANC and calcium values for a New Hampshire lake (but similar to lakes in the area).
2. Much of the pond is very shallow (less than 5 feet) with a very small deep spot.
3. A good variety of net phytoplankton consisting of at least 20 genera was present, but three genera comprised 92% of the population.
4. Access was a very steep boat launch off a dirt road.
5. The bottom dissolved oxygen was very low in the winter as well as in the summer, suggesting much organic matter in the bottom.

Round Pond

Lyman



FIELD DATA SHEET

LAKE: ROUND POND
DATE: 08/03/1999

TOWN: LYMAN
WEATHER: Cloudy, Warm, Breezy

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	24.7	6.7	76 %
	1.0	24.2	6.6	76 %
	2.0	24.0	6.3	76 %
	3.0	21.8	1.3	76 %
	4.0	16.8	0.4	75 %

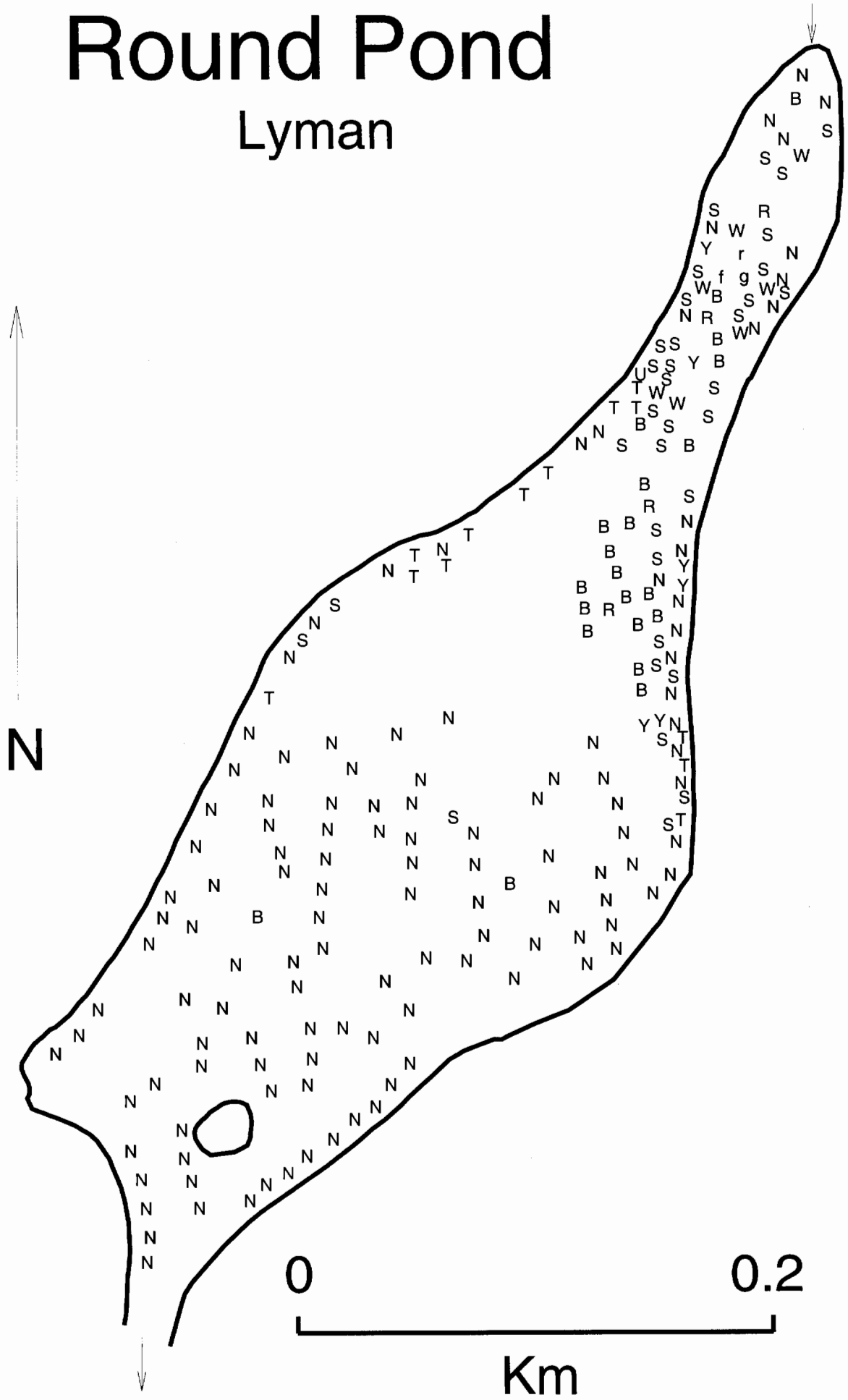
SECCHI DISK (m): 2.2
BOTTOM DEPTH (m): 4.5
TIME: 1128

COMMENTS:

*Dissolved oxygen values are in mg/L

Round Pond

Lyman



AQUATIC PLANT SURVEY

LAKE: ROUND POND TOWN: LYMAN DATE: 08/03/1999

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
N	Nymphaea	White water lily	Abundant
T	Typha	Cattail	Sparse
S	Sparganium	Bur reed	Sparse
B	Brasenia schreberi	Water shield	Sparse
W	Potamogeton	Pondweed	Sparse
U	Utricularia	Bladderwort	Sparse
Y	Nuphar	Yellow water lily	Sparse
r	Sarracenia purpurea	Pitcher-plant	Sparse
f	Potamogeton perfoliatus	Pondweed	Sparse
g	Spongilla	Freshwater sponge	Sparse
R	Potamogeton robbinsii	Robbins pondweed	Sparse

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

1. Water lilies were abundant throughout the pond. The only open water was at the deep spot.
2. One camp was located near the outlet (southern) end of the pond.
3. Plants were very abundant in the narrow inlet end.